

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1           **Claim 1 (currently amended):**   Radio communications  
2           apparatus comprising:  
3           a quadrature modulator for making the transition of  
4           the phase of a modulated wave via a in-phase component and  
5           a quadrature component;  
6           a first voltage-controlled oscillator for outputting  
7           a first transmission signal;  
8           a second voltage-controlled oscillator;  
9           a first mixer for frequency-converting the first  
10          transmission signal based on the output signal of the  
11          second voltage-controlled oscillator;  
12          a phase comparator for comparing the phase of the  
13          output signal of the quadrature modulator with the phase of  
14          the output signal of the first mixer;  
15          a low-pass filter for filtering the component below a  
16          predetermined frequency of the output signal of the phase  
17          comparator and supplying the resulting signal to the  
18          frequency control terminal of the first voltage-controlled  
19          oscillator;~~and~~  
20          a first band-pass filter for outputting a signal  
21          obtained by filtering the component in a predetermined

22 frequency band of the output signal of the quadrature  
23 modulator as a second transmission signal;  
24 a first transmitter for amplifying the first  
25 transmission signal and transmitting the resulting signal  
26 via a first antenna; and  
27 a second transmitter for amplifying the second  
28 transmission signal and transmitting the resulting signal  
29 via a second antenna.

1 **Claim 2 (currently amended):** Radio communications  
2 apparatus ~~according to claim 1, further comprising:~~

3 a quadrature modulator for making the transition of  
4 the phase of a modulated wave via a in-phase component and  
5 a quadrature component;

6 a first voltage-controlled oscillator for outputting  
7 a first transmission signal;

8 a second voltage-controlled oscillator;

9 a first mixer for frequency-converting the first  
10 transmission signal based on the output signal of the  
11 second voltage-controlled oscillator;

12 a phase comparator for comparing the phase of the  
13 output signal of the quadrature modulator with the phase of  
14 the output signal of the first mixer;

15 a low-pass filter for filtering the component below a  
16 predetermined frequency of the output signal of the phase  
17 comparator and supplying the resulting signal to the

18     frequency control terminal of the first voltage-controlled  
19     oscillator;  
20         a first band-pass filter for outputting a signal  
21     obtained by filtering the component in a predetermined  
22     frequency band of the output signal of the quadrature  
23     modulator;  
24         a third voltage-controlled oscillator;  
25         a second mixer for frequency-converting the output  
26     signal of the first band-pass filter based on the output  
27     signal of the third voltage-controlled oscillator; and  
28         a second band-pass filter for outputting a signal  
29     obtained by filtering the component in a predetermined  
30     frequency band of the output signal of the second mixer as  
31     a second transmission signal.

1             **Claim 3 (currently amended):**     Radio communications  
2     apparatus ~~according to claim 1, further comprising:~~  
3         a quadrature modulator for making the transition of  
4     the phase of a modulated wave via a in-phase component and  
5     a quadrature component;  
6         a first voltage-controlled oscillator for outputting  
7     a first transmission signal;  
8         a second voltage-controlled oscillator;  
9         a first mixer for frequency-converting the first  
10     transmission signal based on the output signal of the  
11     second voltage-controlled oscillator;

12           a phase comparator for comparing the phase of the  
13           output signal of the quadrature modulator with the phase of  
14           the output signal of the first mixer;

15           a low-pass filter for filtering the component below a  
16           predetermined frequency of the output signal of the phase  
17           comparator and supplying the resulting signal to the  
18           frequency control terminal of the first voltage-controlled  
19           oscillator;

20           a first band-pass filter for outputting a signal  
21           obtained by filtering the component in a predetermined  
22           frequency band of the output signal of the quadrature  
23           modulator;

24           a second mixer for frequency-converting the output  
25           signal of said first band-pass filter based on the output  
26           signal of the second voltage-controlled oscillator; and

27           a second band-pass filter for outputting a signal  
28           obtained by filtering the component in a predetermined  
29           frequency band of the output signal of the second mixer as  
30           a second transmission signal.

**Claim 4 (canceled)**

1           **Claim 5 (original):** Radio communications apparatus  
2           according to claim 2, further comprising:

3           a first transmitter for amplifying a first  
4           transmission signal output from the first

5 voltage-controlled oscillator and transmitting the  
6 resulting signal via an antenna; and  
7 a second transmitter for amplifying a second  
8 transmission signal output from the second band-pass filter  
9 and transmitting the resulting signal via an antenna.

1 **Claim 6 (original):** Radio communications apparatus  
2 according to claim 3, further comprising:

3 a first transmitter for amplifying a first  
4 transmission signal output from the first  
5 voltage-controlled oscillator and transmitting the  
6 resulting signal via an antenna; and

7 a second transmitter for amplifying a second  
8 transmission signal output from the second band-pass filter  
9 and transmitting the resulting signal via an antenna.

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**Amendments to the Drawings:**

The attached sheets of drawings includes changes to Figs. 6-9. These sheets, which include Figs. 5-9, replace the original sheets including Figs. 5-9. Figs. 6-9 have been labeled "Related Art".

Attachment: Replacement Sheet